फाइल नं0-71-1006/89/2019

148/2023/I/426645/2023

प्रेषक,

एस0पी0 सिंह,
उप सचिव,
उ0प्र0 शासन।

सेवा में,

महानिदेशक,
चिकित्सा शिक्षा एंव प्रशिक्षण,
उ0प्र0 लखनऊ।

चिकित्सा शिक्षा अनुभाग-1 लखनऊ: दिनांक 10 नवम्बर, 2023

विषय:-वित्तीय वर्ष 2023-24 में राजकीय मेडिकल कालेजों/संस्थानों में क्रय किये जाने वाले उपकरणों हेतु मानकीकृत तकनीकी विशिष्टियों के निर्धारण के सम्बन्ध में।

महोदया,

उपर्युक्त विषयक अपने पत्र संख्या-एम0ई0/पर्चेज/2023-24/246, दिनांक 18.08.2023 का कृपया संदर्भ ग्रहण करें, जिसके द्वारा डॉ0 अविनाश अग्रवाल, आचार्य एवं विभागाध्यक्ष क्रिटीकल केयर मेडिसिन, के0जी0एम0यू0 लखनऊ की अध्यक्षता में गठित समिति द्वारा राजकीय मेडिकल कालेजों/संस्थानों में क्रय किये जाने वाले 33 उपकरणों के स्पेसिफिकेशन उपलब्ध कराते हुए अनुमोदित किये जाने का अनुरोध किया गया है।

2- इस सम्बन्ध में मुझे यह कहने का निदेश हुआ है कि डॉ0 अविनाश अग्रवाल, आचार्य एवं विभागाध्यक्ष क्रिटीकल केयर मेडिसिन , के0जी0एम0यू0 लखनऊ की अध्यक्षता में गठित समिति द्वारा राजकीय मेडिकल कालेजों/संस्थानों में क्रय किये जाने वाले कुल 33 उपकरणों के निर्धारित किये गये स्पेसिफिकेशन (संलग्न प्रपत्र के अनुसार) को निम्नलिखित शर्तो/प्रतिबन्धों के अधीन अनुमोदित किया जाता है:-

1. अनुमोदित की जा रही विशिष्टिया प्रोस्पेक्टिव इफ़ेक्ट से लागू होंगी अर्थात् जो क्रय प्रक्रिया उक्त शासनादेश के निर्गत होने कि तिथि के बाद प्रारंभ की जाएँगी उन पर ये विशिष्टियां लागू होंगी| इससे पूर्व initiate की गयी क्रय प्रक्रिया (आधारित थी जो पूर्व विशिष्टियों पर) सिर्फ इसलिए निष्फल नहीं होगी कि नवीन विशिष्टियां प्रख्यापित कर दी गयी है।
2. राजकीय मेडिकल कालेज/संस्थानों में क्रय किये जाने वाले 33 उपकरणों (संलग्नक-1 के अनुसार) की मानकीकृत तकनीकी विशिष्टियां 02 वर्ष तक वैध रहेगी। उक्त विशिष्टियों के आधार पर वर्ष 2023-24 एवं 2024-25 तक उपकरणों का क्रय किया जाना सुनिश्चित किया जाए। उक्त उपकरणों की तकनीकी विशिष्टयों का परिचालन कार्यालय महानिदेशक, चि0शि0 एवं प्रशि0 द्वारा किया जायेगा।
3. उपलब्ध कराये गये उपकरणों के स्पेसिफिकेशन का सम्पूर्ण दायित्व तकनीकी समिति का होगा।

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अत: इस पर हस्ताक्षर की आवश्यकता नहीं है ।

2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

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4. मेडिकल कालेजनसंस्था/ आवश्यकतानुसार स्थानीय स्तर पर गठित तकनीकी समिति के माध्यम से हाई एण्ड स्पेसिफिकेशन के उपकरणों के स्थान पर लो एण्ड स्पेसिफिकेशन वाले उपकरणो का क्रय करते हैं तो इसके कारणों सहित स्पष्ट उल्लेख करेंगे।

4- कृपया उपर्युक्तानुसार दिशा-निर्देशों का अनुपालन सुनिश्चित कराने का कष्ट करें।

संलग्नक-यथोक्त।

भवदीय,

(एस0पी0 सिंह)
उप सचिव।

संख्या/तद्दिनांक, उपर्युक्तानुसार।

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषितः-

1. कुलपति, के0जी0एम0यू0/ उ0प्र0 ग्रामीण आयुर्विज्ञान संस्थान, सैफई इटावा।
2. निदेशक, निदेशक, डा0 राम मनोहर लोहिया आयुर्विज्ञान संस्थान/एस0जी0पी0जी0आई0, लखनऊ,
3. निदेशक, सुपर स्पेशियलिटी बाल चिकित्सालय एवं स्नातकोत्तर शिक्षण संस्थान, नोएडा/, गवर्नमेन्ट इंस्टीट्यूट आफ मेडिकल साईंसेज, ग्रेटर नोएडा।
4. समस्त प्रधानाचार्य, राजकीय मेडिकल कालेज, उ0प्र0।
5. समस्त प्रधानाचार्य, स्वशासी राज्य चिकित्सा महाविद्यालय, उ0प्र0।
6. डॉ0 अविनाश अग्रवाल, आचार्य एवं विभागाध्यक्ष क्रिटीकल केयर मेडिसिन, के0जी0एम0यू0 लखनऊ।
7. गार्ड फाइल।

आज्ञा से,

(एस0 पी0 सिंह),
उप सचिव।

संलग्नक-

33 उपकरणों की तकनीकी विशिष्टियाँ

1- Data Acquisition system with Autonomic, Vascular and Nerve conduction

Data Acquisition system with Autonomic, Vascular and Nerve conduction velocities and Evoked potential Studies.

The system should be able to record and analyze.

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।

2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

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- Pulse, PPG, blood pressure, ECG, Pulse Transit time, Heart Rate Variability [HRV].
- ECG Multi leads configurations for real time cardiac axis & vector analysis.
- Digital microphone for heart & lung sounds studies.
- Pulse Wave velocity, Deep breathing test, Valsalva Maneuver,
- Dynamometer to study Hand Grip Test.
- Four channel balance board for static posturography or body Sway studies.

Hardware Specifications:

- The system should have at least 4 inputs.
- High sampling rate of at-least 10KHz or more.
- At least 2 general bridge amplifiers channels.
- Dual Channel Biopotential amplifier for multichannel ECG, EMG, EEG, EOG etc
- Dual Channel EMG with NCV studies and, F-wave, H-reflex, Blink Reflex and reaction time with Evoke Potential recording Visual and auditory, MMR. LLR & P-300 etc.
- 1 stimulation unit capable of delivering square wave pulse of user defined parameters, Voltage range 010V, pulse duration range 1-1000msec, frequency range 0-100Hz, Current range 0-20mA, Integrated and synchronized with software.
- Transducer and accessories: - Pulse, respiration belt, Disposable ECG and EMG electrodes (1000), reusable ECG electrodes, Grip force transducer, cardio-microphone
- The software should have step by step instructions, protocol and experimental design for performing various experiments in physiology teaching applications. Also, should have sample data for animal experiments for demonstrating to the students.
- Facility for automatic analysis in while data recording and after recording for ECG, Heart Rate Variability, Blood Pressure, Peak analysis, Spectrum analysis, Psychology Experiments, etc.
- Wireless Heart Rate Belts for recording in exercising subject from at-least 1 meter distance.
- It should display data in scope mode and chart mode. It should allow calculation of rate, period, frequency, min, max, count, integral, derivative, height etc. from raw channels in offline as well as online mode
- Software should allow the export of raw data in .txt, .mat, .wav, .abf, .pxp, binary and .edf, formats
- Should have an option to integrate video camera for subject monitoring during the recording.
- Software should allow OLE linking of data to MS Excel
- Software should support real time streaming of raw data to MATLAB
- Software should perform On-line & Off-line analysis of ECG and HRV as follows.
    - HRV analysis - Time &; Frequency domains, Tachogram, Histogram plot, Poincare plot, Power Spectrum plot and report etc.
    - ECG analysis - Averaging, PQRST amplitudes and intervals, QT vs RR, QT vs Time, RR vs Time, Waterfall plot, ST elevation and cardiac axis analysis should be provided.

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- Should have option for Mathematical function and Statistical analysis and export options to other software like MATLAB, Excel, QuickTime, Wav, Text etc for desired interpretation of the data.
- All the listed parameter should work simultaneously as well as independently as per the requirement of department project.
- The software should provide an easy file sharing option to a distant user with-out involving any cost with a 5 year of free updates and upgrade.
- **The system should have Upgrade Options for**
    - Non-Invasive Beat to Beat Blood pressure monitor for tilt table testing.
- Compatible Desktop Computer (Intel i7, 32GB RAM, 1TB HDD, 512 SSD, 24 inch LED Monitor, UPS etc.) Onsite proper demonstrations to be carried out before finalizing.
- **Documentations: -** CE/IEC/FDA/EU compliance, ISO and other safety certificates must be provided.

Disclaimer: These specifications do not belong to any one company.

2- **Whole slide pathology scanner. Automatic High Speed Slide Scanner**

1. Equipment should allow the conversion of glass slides into high-quality digital scans.
2. Equipment should have a loading capacity of 1 or higher number of s ides in a single batch.
3. Imaging mode:- Bright field microscopy
4. Equipment should use plan achromat or apochromatic lenses
5. Equipment should have an inbuilt light source
6. Equipment should work with regular glass slides having dimensions of 76mm +-1,26mm+-1 and thickness of 0.8mm to 1.5mm
7. Equipment should be capable of scanning at High Power
8. Capacity to scan uneven, folded, thick, broken tissue sections, of Histology, Cytology.
9. Should have fast Z-stack scanning, with the ability to configure the number of stacks and the distance between the stacks
10. Equipment should have a Live microscopy / real time remote microscope mode, to enable realtime slide reporting within 15 seconds and allow for the viewing of a 40x field in multiple z-layers.
11. Live mode should have a scout view to enable easy navigation on the slide
12. Should have the ability to synchronously navigate between multiple slides within the viewport for side-by-side comparison
13. Should have a tool to accurately demarcate contiguous patterns.
14. Should have the ability to export annotations as a .csv and .json file
15. Should have the ability to track visited area and create a heat map of the screened region
16. Equipment should be able to scan slides with fresh/wet coverslips, and/or protruding coverslips.
17. Should use a camera with a resolution of at least 7 MP and a sensor of at least 3 inches sensor size.
18. Should have a scanning resolution of 0.22µm/px at High Power.

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19. Scan size for 15x15mm area at 0.22 µm/px should be under 500 Mbs
20. Ultra-Fast scanning mode should have a viewing time (thumbnailing - scanning) of 85 seconds for a 15x15mm section at 0.22um/px with True 40x Objective
21. Should be able to export images in .Jpeg and .png.
22. Should have the ability to export scans as a .tiff file
23. Data and image storage on local storage irrespective of the availability of the internet.
24. Ability to upload scans to cloud storage and support viewing over static IP.
25. Compatible with branded LCD (24"), CPU, Keyboard with compatible speed, having required HDD RAM.
26. Work Station Computer with all Required Software
    a. . Intel Core i7-12700
    b. 64 GB DDR5 RAM Memory
    c. 3.5 inches 500 GB Solid State Drive
    d. 3.5 inches 2TB 7200rom SATA Hard Disk Drive
    e. . Intel Integrated Graphics
27. Compatible image viewing, editing, and annotating software to be provided.
28. Should have the capability to read bar codes and also allow for manual labeling.
29. It should be capable of integrating with the current or proposed LIS system.
30. Should have pre-loaded reporting templates
31. Equipment should be capable of integrating IHC image scoring algorithms and Gleason scoring algorithms within the Native viewer
32. Equipment should be preferably manufactured in India, to enable quick support and availability of parts
33. Physical / Virtual Demo of the quoted model required.
34. Power supply 230V +- 15%, 50Hz +-3% along with UPS backup for at least 10 mins ensuring graceful shutdown during scanning.
35. Service training to MEC engineers and operational training for users/departments should be provided.
36. Tropical

    Operating temperature 40 deg C

    Storage temp 60 deg C

    Relative humidity up to 90% non-condensing.

3- Technical specifications for the Portable fundus camera.

Specifications of Portable Fundus Camera	
Dimensions (W x D x H)	100 x 200 x 175 mm- 120x 230x 200 mm
Weight	700-1000g
Sensor Resolution/type	5-8 MP/CMOS
Protection	Class 1
Charging station	100-240 V, 0.4A, 47 - 63Hz
Battery Rechargeable	Li-Ion 3.6V, 2.350mAh
Field of view	40°
Capture mode	Color, red-free, IR

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Focus range	-20 D to + 20 D
Fixation	9 x LED, internal
Pupil size	3-4 mm
Display	4"-6", TFT-LCD/LED, 720-1080p, 16M colors, anti-glare coating
Data connectivity	USB, WiFi (802.11 b/g/n) on 2.4 GHz band
Data formats	JPEG, MPEG4, PNG
Memory WIFI	SDHC card

4- CSSD Work

ITEM	QTY	DESCRIPTION	UNIT	Change in detail
A1	1	WALL WORKING TABLE REAR FRAME 188 x 60 x 90CM Wall working table for surgical instruments made of AISI-304 stainless steel, with rubber caps. Equipped with anti-splash rear frame. Dimensions 1880 x 600 x 900 mm (Length x depth x height).	No	
A2	1	WASHING TABLE WITH ULTRASONIC AND 2 LEFT SINKS, 250 x 60 x 90 cm Ultrasounds washing table for surgical instruments, made of AISI-304 stainless steel. Provided with three washing sinks on the left hand, two for washing and the other one for ultrasounds with basket, lid and automatic drain, Equipped with frontal control panel. Supplied with a detachable shower, two water supplies, and a bottom shelf splash rear frame. Dimension 2500x600x900mm. (Length x Depth x Height)-Voltage: Il 230V/50-60 Hz.	No	
A3	2	WATER/AIR PRESSURE CLEANING GUN Cold water / pressurized air injector gun for cleaning of materials requiring a high degree of cleanliness of clinic of laboratory usage. Equipped with 8 nozzles to clean different kinds of instruments: a) for syringes and cannulas with record cones) for measuring and blood pipettes) for catheters, valves etc.) for drainage tubing) for syringes and cannulas with Luerconef) spray jet for rapid instrument cleaning) for bottles and Erlenmeyer flasks) water jet pump for suction cleaning.	Nos.	
A4	1	WALL WORKING TABLE WITH REAR FRAME, 188 x 70 x 90 cm Wall working table for surgical instruments, made of AISI-304 stainless steel, with a bottom shelf and adjustable height legs with rubber caps. Equipped with anti-splash rear frame - Dimensions: 1880 x 700 x 900mm (Length x depth x height)	No	
A5	1	WALL WASHING TABLE SURGICAL INSTRUMENTS, TWO SINKS, 250 × 70 x 90cm Wall washing table for surgical with two central washing sinks with monobloc tap for two water supplies, drain valve, with a bottom shelf and adjustable height legs with rubber caps, equipped with anti-splash rear frame – Dimensions 2500×700x900mm (Length x depth x height).	No	
A6	1	LINEAR METERS WALL WORKING TABLEE 188 x 70 x 90 cm Wall working table for surgical instruments, made of AISI 304 stainless steel, with a bottom shelf and adjustable height legs with rubber caps, equipped with anti-splash rear frame-Dimensions: 188x 700 mm. (width x height)	No	

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A7	2	CENTRAL WORKING TABLE WITH 2 DRAWERS, 188 x 88 x 90 CM Central working table for surgical instruments, made of AISI-304 stainless steel, with two drawers mounted on sliding guides and adjustable height legs with rubber caps- Dimensions: 1880 x 880 x 900 mm (Length x depth x height)			
A8	1	WIRE TRANSPORT TROLLEY WITH SHELVES Trolley for transport totally made of wire AISI 304 stainless steel. with brakes Dimensions: 910 x 610 x 1000 mm (Length x depth x height).	No		
A 10	2	DOUBLE DOOR WASHER DISINFECTOR:300 Litre Washer disinfector minimum 12 DIN or more with accessories The washer-disinfector will be suitable for cleaning and disinfection of surgical instruments/goods. The process will include pre-wash, detergent wash and hot water disinfection, rinse and drying cycles. The unit will be suitable for electrical operation and would be complete with a water circulation pump, necessary valves & fittings. It will be microprocessor based so as to ensure correct program sequence and irregularities or deviations which are displayed immediately. Chamber Capacity: Chamber capacity: Operational Volume will be able to process a minimum of 12 DIN trays with 5 levels in a single process. Will supply 12 Nos of standard Stainless- steel DIN trays. The chamber will be made of S.S. 304 or S.S. 316 L quality with electro-polished washed surfaces. The chamber edges will not have pockets & folds so as to avoid bacterial growth. The wash chamber will also be fitted with bright light for clear visibility of the washing process. Connection with the MGPS system for compressed air (if required) will be the responsibility of the bidder. The washer will have the following features: For the shortest possible filling and draining phases, higher capacity quick-opening valves will be used so that a short total process time is achieved. The design will focus on saving the environment through reduced consumption of all utilities. Cleansable spray arms will be located at the top and bottom of the chamber. Wash carts will be equipped with cleansable spray arms between each shelf so as to facilitate water to reach all the surfaces which need to be cleaned. Injection wash carts will be automatically connected to water and drying air in order to clean and dry the inside of the tubular instrument. The drying air will be pre-heated. The washer will be equipped with independent temperature monitoring and validation test port. Data interface RS232 will be available. All electrical components will be easily accessible for easy service ergonomic design. The washer will be equipped with an audible alarm that alerts if an	Nos.		

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		error code occurs. The double door will be automatic and made of toughened glass for see-through & will facilitate the loading process. (Vertical sliding operating door) The washer will have 3 dosing pumps (detergent, alkaline & lubrication) for process chemicals, instrument lubricants/enzymatic cleaners. The washer will perform: Pre-rinses with cold water. Main washes with hot water (6OC) and detergent A final rinse with water (55C) Disinfection with hot water (85C) Unit to have an LCD display and operating console to have membrane keypad for durability or LCD touchscreen display The unit will feature safety measures such as: Automatic door lock. Automatic temperature regulation. Electronic adjustment of water level. The unit will also have an interface as standard for an optional batch printer. The washer-disinfector will be supplied with a universal rack, minimum 4 level racks for instrument tray, full-size instrument tray as well as stop valves, anti-suction device and plastic water trap. Will ensure essential washing accessories. Standards & Norms: Will be US FDA/European CE with 4 digit notified body number. The manufacturer will be ISO 13485:2003, EN ISO15883 and ISO9001 certified and a copy of the certificates will be attached with the bid.			
A11	2	RACKS 4 LEVELS, to accommodate 12 Baskets for Washer Disinfector made of stainless steel.	Nos.		
A12	4	4 MANUAL TRANSPORT TROLLEY FOR WASHER DISINFECTOR Stainless Steel.	Nos.		
A 13	64	BASKET 1/1 485 X 250 X 50 mm	Nos.		
A 14	2	ANESTHESIA TROLLEY. Made of Stainless Steel for anaesthesia elements washing. It should be equipped with 6 connectors for anaesthesia tubes, masks, gloves and other elements. it should be equipped with small baskets for tiny elements.	Nos.		
A 15	1	MANUAL PASS-THROUGH WVINDOW, 90-170MM Made of AISI304 stainless steel, with two side guides along which the window plate slides. The window plate is made of transparent grey methacrylate, with a handle and with a windowsill on which the window is supported when closed. Total dimensions = 1300 x 750 mm. The design of the window allows its installation in walls of thickness from 90 to 170 mm.	Nos.		
		PREPARATION AND PACKING AREA (B)			
B1	9	CENTRAL WORKING TABLE WITH 2 DRAWERS, 188X88X90 CM (Approx.) Central working table for surgical instruments, made of AIS-304 stainless steel, with two drawers mounted on sliding	Nos.		

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		guides and adjustable height legs with rubber caps- Dimension: 1880 x 880 x 900 mm (length x depth x height) Approx.			
B2	3	POUCH SEALING MACHINE Pouch sealing machine for plastic or plastic/paper and Tyvek-type pouches. Automatic operation. Sealing and colling times were electronically selected. Energy-saving thanks to a permanently heated sealing system and automatic stand-by function to shut off the motor when not in use. Totally variable. Sealing temperature: 0 - 220°c Sealing speed: 6.5 m/min- Maximum sealing width: 12 mm. Voltage: Il 230 V-50 Hz.	Nos.		
B3	3	ROLLS DISPENSER WITH CUTTER ROLLS Dispenser made of AISI 304 stainless steel, provided with cutter attached to the roll dispenser. Approx cut length: 750 mm.	Nos.		
B4	2	TROLLEY SUPPORT PAPER STAINLESS STEEL 1410*725*995 mm WITH LOWER GRILLE.	Nos.		
B5	2	WIRE TRANSPORT TROLLEY WITH 2 SHELVES Trolleys for transport. Totally made of wire AISI 304 stainless steel. With two shelves and four wheels. Two of them with brakes. Dimensions:910 x 610 x 1000 mm (length x depth x height)	Nos.		
		TEXILES STORE (C)			
C1	2	MANUAL PASS-THROUGH WINDOW, 90- 170MM Made of AISI-304 stainless steel, with two side guides along which the window plate slides. The window plate is made of transparent grey methacrylate, with a handle and with a windowsill on which the window is supported when closed. Total dimensions = 1300 x 750 mm The design of the window allows its installation in walls of thickness from 90 to 170 mm.	Nos.		
C2	1	CENTRAL WORK TABLE 1300 X 60 X 90CM Central work table for surgical instruments, made of AISI 304 stainless steel, with adjustable height legs with rubber caps.- Dimensions: 1300 x 600 x 900 mm (length x width x height).	No.		
C3	12	WIRE HIGH SHELF, 4 LEVELS, 122 X 61 X 190 CM High wire shelf, equipped with four shelves made of plated AISI 304 steel wire covered with a stainless "epoxy" heat and cold resistant layer. Its construction allows air circulation.- Dimensions: 1220 x 610 x 1900 mm. (length x width x height)	Nos.		
		LINEN PREPARATION AND PACKING AREA (D)			
D1	2	TABLE TO CHECK TEXTILES 180 X 88 X 90CM Table designed for the classification of clothing. Made of AISI-304 stainless steel, with an instruments glass screen under which four lights are placed, With adjustable height legs with rubber caps. Dimensions: 1800 x 880 x 900 mm (length x Width x height) Voltage: l| 110/230 V, 5o/60 Hz. - Power: 0.5 KW.	Nos.		
D2	1	CENTRAL WORKING TABLE WITH2 DRAWERS, 188X88X90 CM Central working table for surgical instruments, made of AlSI -304 Stainless steel, with two drawers mounted on sliding guides and adjustable height legs with rubber caps Dimension: 1880 x 880 x 900 mm (length x depth x height).	No.		
D2	1	POUCH SEALING MACHINE Pouch sealing machine for plastic or	No.		

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		plastic/paper and Tyvek type pouches. Automatic operation. Sealing and cooling times are electronically selected. Energy-saving thanks to a permanently heated sealing system and automatic stand-by function to shut off the motor when not in use. Sealing temperature: 0 - 220°c Sealing speed: 6.5 m/min-Maximum sealing width: 12 mm. Voltage: I1 230V- 50 Hz.			
D3	1	ROLLS DISPENSER WITH CUTTER ROLLS Dispenser made of AISI 304 stainless steel, provided with cutter attached to the roll dispenser. Approx. cut length: 750 mm.	No.		
D4	1	TROLLEY SUPPORT PAPER STAINLESS STEEL 1410*725*995 mm WITH LOWER GRILLE.	No.		
D5	1	CENTRAL MOBILE RACK WITH WHEELS Central mobile rack for wire baskets made of AISI304 stainless steel. Equipped with four wheels, two of them with brakes.- Dimensions: 465 x 600 x 1600 mm (length x width x height)- Capacity: 4+ 4 baskets.	No.		
D6	1	WIRE TRANSPORT TROLLEY WITH 2 SHELVES Trolleys for transport. Totally made of wire AISI 304 stainless steel. With two shelves and four wheels. Two of them with brakes. Dimensions:910 x 610 x 1000 mm (length x depth x height).	No.		
STERILIZATION AREA (E)					
E1	3	STEAM STERILIZER, STU-6, 425L, 2 DOORS Two doors steam sterilizer with the squared chamber in a horizontal position. Continuous jacket avoiding cold spots inside the chamber manufactured and it should meet EN ISO / IEC directives and product should be European CE from the notified body with a 4-digit number / US FDA Certified / IS-3829 Part 1. Copy of certificate to be attached. Quality stainless steel for chamber: Quality AISI 316L (MINIMUM THICKNESS 5 MM)- Jacket: Quality AISI 316L (MINIMUM THICKNESS 5 MM)-Door: Quality AISI 316L (MINIMUM THICKNESS 12 MM) Steam generator AISI 316 (MINIMUM THICKNESS 3 MM)- STEAM PIPES: AISI 316 thermal insulation chamber and door with mineral wool (between 40 and 90 MM width) thermal insulation steam generator. In the steam generator with the following features 40 KVW made of stainless steel (AISI 316L) water level indicator safety valve at 3,3 bar water level system made in stainless steel adjustable working pressure according to the selected cycle pressure control done by pressure transducer (no pressure switches) multicontactor system. Each heating element is controlled by an individual contactor (Energy saving) independent water tank with a cooling coil for recovering heat from condensates, which allows preheating water, The sterile area door can be opened only if the cycle has been completed successfully. In case there is pressure inside the chamber at the end of the cycle, the door cannot be opened. The limit switch (monitored by the control system) detects the end position of the door closing for safety reasons the door will be closed by pressing the closing door movement will reverse until the door is fully open. a built-in PLC	Nos .		

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		touch colour screen easy to use and understand. Independence of readings by means of Double PLC Double temperature sensor in chamber Double pressure sensor in chamber visual indicators on the front panel (alarm, process status, pending for repair, hot surface, supplies problem) The screen should be at least, TFT high-quality colour touch screen of 5.7" (minimum), and should display the following minimum information:- Access to program selection menus, information, maintenance and statistics, - Opening doors, signalling their status.- Parameters display of various programs.- On-line monitoring of the current data cycles: temperature, pressure, phase time, cycle time and phase name,- Display and operating alarm management and/ or handling errors, cycle reset.- Process graphic display (pressure and temperature) in real-time. Users' management and passwords Restricted access code maintenance program alphanumeric thermal printer to print representative data of the cycles: cycle parameters: pressure, temperature and time cycle name batch alarms and errors sterilizer number date validation maintenance front door for an easy maintenance front door for a port easy maintenance access. Full opening programs operation is fully automatic: vacuum testbowie & dick test (134° C- 3.5min) rubber (121°C) instruments in containers (1340 C) textiles & instruments (134°C) rapid (134° C) special P (Prions) chamber dimensions: 670 x 670 x 1000 mm (HxHxW) approx. (425liters) approx. total maximum power: 45 KW (440v 3 phase + N) Built-in air compressor: Compact unit Including pressure switch, pressure regulator, manometer and impurity filter and security valve. Upper and lower lintel S set loading zone upper and lower lintel for infill of sterilizers installed between walls with maintenance doors on both sides. Completely made of stainless steel AISI-316 set, panel work (unloading area). Manufactured in AISI-316 stainless steel.		
E2	6	MAINTENANCE D0OR 650 MM Maintenance access door (650 mm width). Recessed door with mesh and manufactured in AISI-304 stainless steel. Light of 530*1890 mm. Including a top lintel with 200 mm height. Total height: 2196 (1998 + 198). Designed for the panelling of sterilization areas with maintenance areas. As standard, it is supplied with the right opening. Upon request, it can be requested with the left opening.	Nos.	
E3	6	EXTERNAL LOADING/UNLOADING TROLLEY FOR STEAM STERILIZER Made of AISI 304 stainless steel, with a fixing system between the trolley and chamber guides with four high-quality wheels, two of them with brakes and blocking system.	Nos.	
E4	6	LOADING PLATFORM FOR STEAM STERILIZER Made of AISI-304 stainless steel fine mesh, with butts and four temperature-resistant Teflon wheels.	Nos.	
		Will meet international standards directives i.e US-FDA/ European CE with 4-digit Notified No ISO-13485, ISO 9001, ISO 14001, PED 2014/68/EU & HYGCEN Accreditation MDD 93/42/EEC Medical Device Directive		

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E5	1	PLASMA STERILIZER Capacity: 135 Ltr. Should work on the principle of Hydrogen peroxide Plasma technology capable of sterilizing all infective agents. should have H202 as the Sterilizing Agent. Plasma should be created inside the chamber. Suitable for sterilization of heat-sensitive instruments, optical glasses & optical lenses, catheters, metal/non-metal Equipment like flexible/rigid endoscopes, metal and plastic lumen items etc. Should have chamber volume of minimum 135 litres capacity Should have a rectangular design chamber made of Aluminum alloy material. Single door, floor standing & automatic vertical sliding door operation. Will have double layer shelve loading. Will have three programs: a) Standard Cycle b) Express Cycle c) Leak test. The sterilization temperature will be 60-degree c. Sterilization time should be less than 60 minutes for the standard/Express cycle. H202 should be in cassette/ bottle form Should be environment friendly and must not leave any toxic by-products or harmful residuals. Power supply: 3 phase, S0 Hz operation should have a colour touchscreen display and operation Should be provided with built-in thermal printer Should have a visual alarm facility in case of any alarm. Door sealing Should be done through silicon rubber All the pipings Should be S.S and copper material. The internal Loading rack will be made of Stainless Steel. The external Loading trolley will be made of Stainless Steel Will meet international standards directives i.e US-FDA/ European CE and EC standards certificate issued by notified bodies under directive 93/42/EEC Medical devices Should be as per ISO9001 & ISO 13485 The washer should be equipped with an effective steam.	Nos.	
		ETO STERILIZER 135 LITRES (Optional) – Additional Equipment to CSSD set up for sterilization in emergency/ shutdown/ maintenance period Aeration of the equipment should be operated manually. The cabin should be kept under constant negative pressure not to let the user be exposed to the Ethylene Oxide gas, and any possible leakages should be discharged safely by way of a discharge pipe immediately. Due to the standardization requirements, an urgent de-energizing button should be available on the front panel of the equipment in case of electrical leakage during operation. Electromagnetic Compatibility (EMU), TS EN 60601-1: 2009 Medical Electrical Equipment Basic Safety Equipment should be able to sterilize all kinds of medical and surgical materials, plastic,		

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		rubber and laboratory tools, resistant to heat or not with Ethylene Oxide gas. Equipment should be in conformity with the sterilization units and its internal and external surface structures should be made up of MEDICAL INOX material. The structure of the sterilization units should not host any microbes and be cleaned easily. Equipment should be operated with disposable/single-use Ethylene Oxide gas cartridges for sterilization safety. Content of each cartridge should be 11/22 gr. Equipment should have a CE certificate. Equipment should be registered to the UTS system (National Data Bank) of the Ministry of Health. Equipment should have a CE certificate, conforming to the 93/42 EEC Directive and should be registered to the UTS (National Data Bank) system of the Ministry of Health. Equipment should have a reliable discharge system by means of a vacuum pump system. Equipment should have IEC 61010-02-040 Medical Sterile Equipment Laboratory Test Report. Equipment should have one door and be cabin-type. Its volume should not be smaller than 265 litres. Equipment should have the certificates of TS EN 60601-1-2: 2011 Medical Electrical Equipment Equipment should provide a warning signal when its door is open and warn the user when the sterilization cycle is terminated. Equipment should sterilize materials, not resistant to heat and humidity between the temperature ranges of 37 °C - 54 °C. External Dimensions should be - 667 x 788 x 1050 mm (W x D x H) Internal Chamber Dimensions should be - 580 x 673 x 639 mm (W x D x H) Net weight should be 67 kg, No. of bags per cycle- 2 bags The power used should be 1000 watt Standards, TS EN 60601-1-2: 2011, TS EN 55011: 2010 (EMU), obtained from accredited test laboratories. Sterilization and aeration should be accomplished in the same cabin. The sterilization bag size should be - 60 x 90 cm Sterilization should be executed with the gas diffusion technique. Equipment should be suitable to be operated with the 11/22 gr. ethylene oxide gas, sterilization bag, and dosimeter and humidity chip. There should be a circuit breaker safety device in case the sterilization temperature exceeds the safe values. There should be a RESISTANT, FAN and VACUUM indicator system to let the operator follow the operation phases of the equipment. There should be a second safety thermostat other than the standard safety thermostat. If the standard/first safety thermostat fails, the second safety thermostat should become active automatically. Total sterilization and aeration time should not exceed 8 hours. Voltage- 220 V / 50 Hz Walls of the equipment should be insulated.18. Door sealing gasket of the equipment should be heat-resistant silicone. Gaskets		

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		used in refrigerators should not be used The equipment should possess the following certificates:- European CE Accreditation Certificate with four-digit number/ USFDA ISO-13485, ISO 9001, ISO 14001 TS EN 61010-2-040 Medical Sterile Equipment Laboratory Test Report TS EN 61010-1-2 EMU(Elektronik Güvenlik Test Raporları) The equipment manufacturer should be in the medical equipment business for more than 20 years and should have an exclusive dealer in India with an exclusive contract for sales & services.		
E6	1	RAPID STERILIZER TABLE TOP CAPACITY 24 LTR) It should be a class b Steam steriliser with efficient vacuum & drying system Should be fully microprocessor controlled high pressure rapid sterilizer. Should have a cycle suitable for wrapped, unwrapped, rubber, & Prion & should have a user-defined cycle facility also. Should have test program: BD & Helix and leak test. Should have design pressure ranging from -0.1 MPA to 0.3 MPA Designed temp up to144-degree c Working temperature range of 105 to 138 Degrees C. Should have a cycle time between 20 min to 60 min depending upon the load. Chamber Structure: Cylindrical, Horizontal Chamber Capacity: 24 Liters Chamber dimensions not less than 250mm *450mm Weight not more than 60 kg Should have an automatic door opening through the press of a button Power Supply: 230 V/50 Hz Should have an instant built-in separate steam generator. Should have an LCD Screen for the display of Pressure, temperature, time, running process, error and alarm information. Should have built-in printer to print the data during cycle operation. Should have protection device for over temp., for steam generator & should have door safety interlock protection & chamber overpressure protection. Chamber should be made of 304/316 S.S quality Should have three loading trays Should be European CE certified and as per directive 93/42/EEC of MDD The chamber design should be as per PED directives/ ASME. should be as per ISO 9001:2015	Nos .	
F1	2	STORING RACK 6 SECTIONS S1000 Central frame for basket storing (sterilizer S1000). Made of AIS-304 stainless steel and capacity for 6 racks (three x three). Intended for placement in the central part of a room, -Dimensions: 1950 x 600 x 2150 mm (Length x width x height)	Nos.	
F2	36	STACKABLE LOADING BASKET FOR STERILIZERS, S8X30X28 CM Stackable loading basket of 1 SM (according to EN285) for sterile material. Made of electro-polished AISI 304 stainless steel.	Nos.	

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		Dimensions: 580 x 300 x 280 mm, length x width x height)		
F3	24	STACKABLE LOADING BASKET FOR STERILIZERS, 58X30X14 CM Stackable loading basket of 1/2 SM (according to EN285) for sterile material. Made of AISI 304 stainless steel. Dimensions: 580 x 300 x 140 mm. (length x width x height)	Nos.	
F4	13	WIRE HIGH SHELF, 4 LEVELS, 122X61X190 CM High wire shelf, equipped with four shelves made of plated AISI304 steel wire covered with a stainless "epoxy" heat and cold-resistant layer. Its construction allows air circulation. Dimensions: 1220 x 610 x 1900 mm. (length x width x height)	Nos.	
F5	2	WIRE TRANSPORT TROLLEY WITH 2 SHELVES Trolleys for transport. Totally made of wire AISI 304 stainless steel. With two shelves and four wheels, Two of them with brakes. Dimensions:910 x 610 x 1000 mm (length x depth x height)	Nos.	
F6	1	CENTRAL WORK TABLE 1100x60×90CM Central work table for surgical instruments, made of AISI-304 stainless steel, with adjustable height legs with rubber caps- Dimensions: 1100 x 600 x 900 mm (width x height)	No.	
F7	1	MANUAL PASS-THROUGH WINDOW, 90- 170MM Made of AISI-304 stainless steel, with two side guides along which the window plate slides. The window plate is made of transparent grey methacrylate, with a handle and with a windowsill on which the window is supported when closed. Total dimensions = 1300 x 750 mm The design of the window allows its installation in walls of thickness from 90 to 170 mm.	No.	
G1	1	LOW CLINICAL SHELE, 1100X48X90 CM low shelf made of AISI-304 stainless steel, provided with adjustable legs with rubber caps, upper working surface and lower shelver,- Dimensions: 1100 X 480 X 900 mm. (length x depth x height)	No.	
G2	5	CUPBOARD TROLLEY FOR STERILE MATERIAL Equipped with two shelves, with a capacity for 6 sterilization units (modules of 600 x 300 x 300 mm). manufactured in anodized aluminum, offering the following advantages: Light Resistant to corrosion- High thermal conductivity allowing a fast drying- Resistant to the thermal treatment of washing and sterilization. The doors can be opened at a 2700 angle, with a stopping device at 260 for being washed in a washing tunnel. Equipped with an ergonomics double handle placed on one side of the trolley. Supplied with the central brake system. Dimensions: 1077 x 720 x 1505 mm (width x depth x height)	Nos.	
ITEM	**QTY**	**DESCRIPTION**		
H1	1	WATER SOFTENER water softener with 2 bottles of 601 resins each. Regeneration by twin system allowing the water supply during 24 h uninterrupted with a salt tank of 200 kg,- Each column dimensions: 360 x 1315 mm (diameter x height)- Salt tank dimensions: 570 x 1000 mm (diameter x height)- water production (5OHF): 15.120 litres/day- salt consumption: 24 kg per regeneration- Maximum flow: 4800 1/h- Voltage: I1 230V/50 Hz	No.	

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H2	1	REVERSE OSMOSIS TREATMENT PLANT Equipped with: - Pre-filtration of sediments (high grade)- pre-filtration for the removal of chlorides with granular activated carbon-Pre-filtration of sediments (low grade 5 micra)- Reverse osmosis device- Approx. production:125 i/h- Assembled on a glass fibre panel-pressure pump in stainless steel with magnetic coupling of 0.5 HP- Reverse osmosis membrane 800 GPD- Controller with indicator display-Tank of 750L with pump	No.	
	1	Plumbing Work	**Job**	

Note:

- **Sampling of Steam Sterilizer, Washer Disinfector and Plasma Sterilizer is mandatory for all bidders.**
- **Item Rates will be covered with a minimum 05-year warranty and after the warranty 05 years CMC.**
- **All CSSD Instruments should be in the norms of NABH and QCI.**
- **CSSD Should is installed within 90 days from the date of the LOI issue.**
- **All consumable items related to plant machinery installation and commissioning should be supplied by bidder.**

5- SPECIFICATION FOR A Scan BIOMETER FOR IOL POWER CALCULATIONS.

- Immersion and contact technique probe
- Probe frequency -10MHz
- Clinical accuracy-±0.1mm
- Axial length range -15-35mm
- Gain range-40-80 dB
- IOL formulae_including Holladay, SRK-II, SRK-T, HoflerQ, Haigis and post refractive Surgery K adjustment software.
- High contrast colour LCD screen.
- Multiple Programmable user profiles
- Built IN Thermal printer
- Dust cover, foot pedal, printer paper.

This specification is not of any particular firm

6- <u>UNIT CHAIR (SPECIFICATION)</u>

- Fully flexible, rotating recliner chair with minimum chair height=560mm +_10mm and max = 740mm.
- Silent CE,German DC motor driven up and down and inclination
- Movement and zero memory.
- Adjustable foot rest.
- Foot switch for chair movement control.
- Full movement control back rest panel.

Floor to sliding Aom height=875mm

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Max area chair unit = 2390*1205mm.

Rotation of chair=180 degree

Up and down movement strokes=180mm.

- Maximum load carry=125kg.
- Power=230*50 Hz connector
- Totalweight=225 kg
- Automatic under the table connector for slit lamp.
- Safety switcher and integrated centralized control
- Built in connectivity for I/O, near in holder and projector.

This specification is not of any particular firm

7- SPECIFICATIONS OF RADIO-FREQUENCY CAUTERY

Dimensions	
Height	5 inches
Width	9 inches
Depth	13 inches
Weight	18 lbs
Output Frequency	
Monopolar cut	90 watts
Monopolor cut/coag	65 watts
Monopolar Hemo	45 watts
Monopolar fulgrate	35 watts
Bipolar	90 Watts

This specification is not of any particular firm

8- TECHNICAL SPECIFICATION OPHTHALMOSCOPE

Environmental operation	+10 deg C to +35 deg C 30% -75% rel. humidity 700 hPa to 1060 hPa
Environmental conditions for storage	+10 deg C to +55 deg C 10%-95% rel. humidity 500 hPa to 1060 hPa
Environmental conditions for transport	-40 deg C to + 70 deg C 10%-95% rel. humidity 500 hPa to 1060 hPa
Protection class	II
Resolution camera	2592 x 1944 pixels (5 megapixels)
Format	½2,5" CMOS
Interfaces	Mini – USB (camera), USB 2.0 (PC)
Power supply	Via USB 2.0 (5V)- cable length 3m
Weight	580 G

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9- SPECIFICATIONS OF VIDEO CAMERA

Specification of Video Camera include: **Camera head**

Image device -	1/2.8 type"Exmor R" CMOS image sensor , RGB 3CMOS type
Effective pixels	1920(H)x 1080(V)
Lens Mount	C-Mount
Sensitivity	F13 (Typical) (At 1080/59.941,89.9% reflection, 2000 lx) F20 (Typical) (At 1080/59.941,89.9% reflection, 2000 lx)
Pictures S/N	63db(Y) (Typical)
Horizontal Resolution	1000 TV lines or more
Gain	0 dB to 30 dB
Shuttle speed	1/60 to 1/10000
Slow shutter	2 to 8 frames
Camera cable connector	20- pin, Round
20-pin, Round	1080/60,1080/60p, 1080/501,1080/50p

10- Camera Control Unit

Picture profile	Yes (six settings)
Picture flip	Yes
Freeze function	yes(capturing a still image)
Color bar	Off/ multi/EBU 100% / Test Saw
Camera synchronization for 3D-shooting-	yes
AC power Operation	yes

11- Connectors

Input Connectors	Remote contact switch Connectors 1,2(stereo minijack)
Output Connectors	VIDEO OUT(x1)(BNC) VIDEO OUT(x1)(4-pin mini DIN connector)
Output Connectors	HDMI OUT (x1) (HDMI connector) HDSDI OUT(x2)(BNC,HD/3G)
Input/Output Connectors	Camera (x1)(20-pin, Round) RS- 232C (x1) (D-sub 9-pin) 3D – SYNC IN, OUT(BNC)
Other connector	Equipotential ground connector

12- General

Power requirements	100V to 240V AC, 50/60 Hz
Input current	0.40 A 0.25 A
Operating temperature	- 0°C to 40°C (32°F to 104°)
Operating humidity	20% to 80% (no condensation allowed)

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Storage and Transport temperature	20°C to +60°C (-4°F to +140°F)
Storage and Transport humidity	20% to 90% (no condensation allowed)
Mass (Camera head) –approx	approx. 60g
Mass(Camera Control unit)	approx. 1.9kg
Dimensions (Camera head)(WHD excluding longest protrusion)	Approx 34X39X43MM (approx. 13/8x19/16x13/4in)
Diminution (Camera Control unit) excluding longest protrusion)	approx.200x62x264mm (approx.77/8x21/2×101/2 in)
Supplied items	Lens Miunt cap (x1)Before using this unit (x1 CD –ROM Warranty booklet

This specification is not of any particular firm

13- SPECIFICATION FOR KEELER HAND HELD TONOMETER

IP rating – IPXO

Dimensions - 220 x 136 x 206 mm (H x W x D)

Weight - 1.04kg

Displayed accuracy - upto 1 decimal place

Illumination system - LED, white and infrared

Working distance - 11mm from surface of patient's cornea to front surface of the window

Display-OLED 0.95"

Measurement range - 5 - 50mm Hg

This specification is not of any particular firm

14- SPECIFICATIONS FOR TONO-PEN APPLANANTION TONOMETER

Dimensions - 64" x ¾" x 1" (16 x 2 x 4.4 cm)

Weight - 71g

Transducer - Micro Strain Gauge

Measurement Range - 5 - 55 mmHg

Display LCD Screen

Power Source - POWERCEL Battery Pack

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।
2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

This specification is not of any particular firm

15- SPECIFICATION SPECULAR MICROSCOPE

Field of view	1000x750 micrometre
Maximum Analysis area	400x300 microm each (upto 4 areas)
Camera	CMOS
Illumination	Halogen Lamp
Moving range of Stage	x:16mm, Y:16mm, Z:16mm
Input Voltage	AC100-240V, 50/60Hz
Power consumption	80VA
Dimensions	Approximately
300 (H)x 225 (W)X 275 (D) mm	
Weight	8kg
Accessories	Chamber Holder, Chamber cap,
Chamber Adaptors, Vial Adaptor	
Set (Vial Lid, Vial Adaptor, Spacer, Holder)	
Micrometer	
Enhance illumination	
Specular image	
2x zoom imaging	
Analysis (centre method flex centre method)	Present
Built in pachymeter	
Real time media temperature sensor	
Donor enhance image	
Full graft image	Recordable
Measurement Tools on full graft image	(Diameter, Length,Area)
OS	Windows "7 Pro32 bit SP1
Disk Device	CD-ROM Drive
RAM	4GB or higher
Display Resolution	1920 x 1080 or higher

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16- SPECIFICATION OF DIAMOND KNIFE CLEAR CORNEA

B (mm)	L(mm)	D(mm)	Angle
2.00	4.00	0.20	90
2.20	4.00	0.20	90
2.30	4.00	0.20	90
2.40	4.00	0.20	90

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।
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2.50	4.00	0.20	90
2.65	4.00	0.20	90
2.80	4.00	0.20	90
2.85	4.00	0.20	90
3.00	4.00	0.20	90
3.10	4.00	0.20	90
3.20	4.00	0.20	90

This specification is not of any particular firm

17- TECHNICAL SPECIFICATIONS FOR SYNAPTOPHORE

	RANGE	TOLERANCE
Horizontal movement	+40"to 50"	+/-1°
Vertical movement	+/- 30°	+/-1°
Torsion movement	+/-20°	+/-1°
Interpupillary distance	45-75mm	
Chin rest height	71- 133 mm	
Light source	2x6 V	
Weight	15 to 20 kg	
Dimensions (packaged) (unpackaged)	535 × 475 x 580mm 320 x 290 x 320mm	
Haidinger's brushes device		

This specification is not of any particular firm

18- SPECIFICATION OF PEDIATRIC VISUAL ACUITY CARDS

1. Keelers- 1

2. Cardiff- 1

3. Sherider garden card - 1

This specification is not of any particular firm

19- SPECIFICATION OF PALM SCAN

1. It should capture the
   i. Axial length
   ii. Anterior chamber depth
   iii. Lens thickness
2. IOL power calculation with modern formula.

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3. IOL power calculation for post refractive correction.
4. Dense cataract penetration by Quad adjusting system.
5. Accuracy: Parallel laser inferometry acquires 8192 data points per scan

- Accuracy :0.05 mm
- Resolution: +/- 10 microm
- Range: 15-40 mm
- Probe frequency: 10 MHz
    - Scan Time on single battery charge : 6 hrs

6. Ultrasonic alignment should be there.

This specification is not of any particular firm

20- SPECIFICATIONS OF CATARACT SET

One Cataract Set Contains

1. - Wire Speculum-1
2. - Superior Rectus holding forceps-1
3. - Bridle Suture holding forceps-1
4. - Artery Forceps-1
5. - Conjunctival Scissor-1
6. - Conrneal Scissor-1
7. - Lims forceps-1
8. - Macpherson forceps-1
9. - Microrrhexis forceps(Titanium)-1
10. - Utrata forceps-1
11. - Vannas Scissor (Straight-1)
12. - Vannas Scissor (Angled-1)
13. - Needle holding forceps-1
14. - Sinski hook-1
15. - Lens holding forceps-1
16. - Simco cannula-1
17. - Iris repositor-1
18. - Irrigating vectis-1
19. - Air Cannula-1
20. - Hydro Cannula-1
21. - Suture tying forceps-2

This specification is not of any particular firm

21- SPECIFICATIONS OF YAG CAPSULOTOMY LENS

Power (D) : 20

Field of view (^{0}) : 180

Magnification : 1

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।

2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

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Type : convex

Reason: A Yag lens is a convex lens that is used for indirect ophthalmoscopy. It has a wide field of view of 180 degrees, which makes it useful for viewing large areas of the retina. The Yag laser is used to create a small opening in the lens capsule of the eye.

This specification is not of any particular firm

22.- SPECIFICATIONS OF IRIDOTOMY LENS

Power (D) : 90

Field of view (^{0}) : 180

Magnification : 1

Type : convex

Reason: An iridotomy lens is a convex lens that is used for iridotomy. It has a wide field of view of 180 degrees, which makes it useful for viewing the iris and to create an opening in the iris.

This specification is not of any particular firm

23.- SPECIFICATIONS OF 90D LENS

Power (D) : 90

Field of view (^{0}) : 60

Magnification : 4

Type : convex

Reason: A 90D lens is a high-power convex lens that can be used for indirect ophthalmoscopy. It has a narrower field of view of 60 degrees, which makes it useful for viewing small areas of the retina in more detail.

This specification is not of any particular firm

24.- SPECIFICATIONS OF 20 D LENS

Power (D) : 20

Field of view (^{0}): 180

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।
2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

Magnification : 1

Type: convex

Reason: A 20 D lens is a convex lens that can be used for both direct and indirect ophthalmoscopy. It has a wide field of view of 180 degrees, which makes it useful for viewing large areas of the retina.

This specification is not of any particular firm

25.- SPECIFICATIONS OF 2.2 LENS

Power (D) : 2.2

Field of view (°) : 180

Magnification : 1

Type : convex

Reason: A 2.2D lens is a low-power convex lens that can be used for indirect ophthalmoscopy. It has a wide field of view of 180 degrees, which makes it useful for viewing large areas of the retina

This specification is not of any particular firm

26.- SPECIFICATIONS OF 3 MIRROR GOLDMAN LENS

Power (D) : -3

Field of view (°) : 30

Magnification : 3

Type : concave

Reason: A Goldman -3 lens is a concave lens that is used for direct ophthalmoscopy. It has a narrow field of view of 30 degrees, which makes it useful for viewing small areas of the retina in more detail. The concave lens bends light rays away from each other, which allows for a greater magnification of the retina.

This specification is not of any particular firm

27.- SPECIFICATIONS OF PRP LENS

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1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।
2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

Power (D) : -3

Field of view (°) : 30

Magnification : 3

Type : concave

Reason: A PRP lens is a concave lens that is used for direct ophthalmoscopy. It has a narrow field of view of 30 degrees, which makes it useful for viewing small areas of retina in more detail. The concave lens bends light rays away from each other, which allows for a greater magnification of retina.

This specification is not of any particular firm

28.- SPECIFICATIONS OF GRID LENS

Power (D) : 2.2

Field of view (^{0}) : 180

Magnification : 1

Type : convex

Reason: A grid lens is a convex lens that is used for indirect ophthalmoscopy. It has a wide field of view of 180 degrees, which makes it useful for viewing large areas of the retina. The grid pattern on the lens helps to visualize the retina and to identify any abnormalities.

This specification is not of any particular firm

29.- SPECIFICATIONS OF 2 MIRROR GONIOLENS

Power (D) : 20

Field of view (°) : 30

Magnification : 2

Type : convex

Reason: A 2 mirror goniolens is a convex lens that is used for gonioscopy. It has a narrow field of view of 30 degrees, which makes it useful for viewing the angle of the eye. The two mirrors of the lens allow for a better view of the angle and to identify any abnormalities.

This specification is not of any particular firm

30.- SPECIFICATIONS OF 4 MIRROR GONIOLENS

Power (D) :20

1- यह शासनादेश इलेक्ट्रानिकली जारी किया गया है, अतः इस पर हस्ताक्षर की आवश्यकता नहीं है ।
2- इस शासनादेश की प्रमाणिकता वेब साइट http://shasanadesh.up.nic.in से सत्यापित की जा सकती है ।

Field of view (^{0}) : 15

Magnification : 4

Type : convex

Reason: A 4 mirror goniolens is a convex lens that is used for gonioscopy. It has a narrower field of view of 15 degrees than the 2 mirror goniolens which makes it useful for viewing the angle of the eye in more detail. The four mirrors on the lens allow for a better view of the angle and to identify any abnormalities.

This specification is not of any particular firm

31.- SPECIFICATION OF REDUCTION LENS

Diameter	53.5 mm
height	10 mm
weight	65-85g

32.- Specification of Front Lens

Width	18 mm
Depth	45 mm
Height	21.3 mm
Weight	20-25 g

Should be compatible with Microscopes with Objectives lens of f=200mm.

This specification is not of any particular firm

32- Digital Wide-field Imaging System with FFA for Infant Eyes

Product Specifications

Parameters Values

Image resolution 2048 X 2048 - 5472 x 3648, 24-bit colors

Minimum Pupil Diameter 2-3 mm

Field Of View 120-150 degrees

Adjustments Intensity, gain, balance, brightness,

contrast, gamma and focus

Imaging Modes Color fundus, FFA and cornea

Imaging Still images and burst mode images

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FFA Filter Switch Automatic

Weight of Handheld Unit 250-350g

Dimensions of Handheld Unit 200 (L) X 60 (W) X 50 (H) mmn-220 (L) X 80 (W) X70 (H) mm

Dimensions of Transport Package 625 (L) x 400 (W) x 275 (H) mrn -675(L) x 460(W) x 325 (H) mm

Weight of Transport Package 10 - 12 Kg

Compatibility DICOM Export and PACS support,

Telemedicine, USB 3.0

Power Supply Input: AC 100-240V, 50/60 Hz (for DC power adapter 5V/5A)

This specification is not of any particular firm

33.- SWEPT SOURCE OCT WITH OCT-ANGIO AND MULTIMODAL IMAGING CAPABILITIES

SCAN SPEED MIN. 1,00,000 SCANS/PER SECOND

QUANTITATIVE ANALYSIS OF VESSEL DENSITY

DISPLAY OF ORCC LAYERS with Enhance Depth

Analysis

OBSERVATION AND PHOTOGRAPHY OF FUNDUS

IMAGE

PHOTOGRAPHY TYPE COLOUR, RED-FREE

FIELD OF VIEW 45°

TRANSVERSE RESOLUTION 13-15um (in tissue)

PHOTOGRAPHABLE DIAMETER OF PUPIL 2.5mm OR MORE

OBSERVATION AND PHOTOGRAPHY ON

FUNDUS TOMOGRAM

SCANNING RANGE (ON FUNDUS) HORIZONTAL- WITHIN 3-12mm

VERTICAL- WITHIN 3-12mm

SCAN PATTERNS CUBE, WIDE, HD Raster (1,5,21 Line), 3D SCAN,

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LIVE-SCAN, CROSS-SCAN, RADIAL-SCAN

LATERAL RESOLUTION 15-20 µm

IN-DEPTH RESOLUTION DIGITAL- 1.5-3.0 µM

OPTICAL FUNCTION- 5-10 µM

- SHOULD HAVE OPTION FOR FOLLOW UP SCANS
- SHOULD HAVE TRACKING FUNCTION DURING LIVE CAPTURING
- SHOULD HAVE ABILITY TO SELECT THE AREA OF INTEREST FOR OCT SCAN ON FUNDUS IMAGE

AND THEN MACHINE SHOULD AUTOMATICALLY SHIFT THE SCAN PATTERN TO SELECTED AREA

FOR SCANNING.

- SHOULD HAVE ABILITY TO COMBINE A LINEAR SCAN WITH WIDE 3D SCAN
- SHOULD HAVE Macula Thickness Analysis with Reference Database (Diversified and

Asian), Macular Change Analysis, Advanced RPE Analysis, 3D Visualization, En Face

Analysis

- SHOULD HAVE THE LATEST HOOD'S REPORT FOR GLAUCOMA PROTOCOL
- SHOULD HAVE GLAUCOMA PROGRESSION ANALYSIS SOFTWARE
- SHOULD HAVE Ganglion Cell/IPL Thickness, RNFL Thickness, ONH Parameters with

Reference Database (Diversified and Asian)

- SHOULD HAVE WIDE RANGE OF DIOPTRE COMPENSATION TO SUIT VARIETY OF PATIENTS, I.E. FROM -33D TO +40D

FIXATION TARGET INTERNAL FIXATION TARGET (DOT MATRIX TYPE)

EXTERNAL FIXATION TARGET

OCT-ANGIOGRAPHY

SCAN RANGE (ON FUNDUS, OPTIC-DISC) 3MM, 4.5MM, 6MM, 9MM AND 12MM.

RESOLUTION 320*320 PIXELS FOR 3 & 4.5MM

512*512 PIXELS FOR 6MM, 9MM AND 12MM SCANS

Analysis Macula : Foveal Avascular Zone, Perfusion Density,

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Vessel Density (ETDRS grid)

Optic Nerve Head: Capillary Perfusion Density,

Capillary flux index

- SHOULD HAVE ABILITY TO CREATE OCT-ANGIO MONTAGE

ANTERIOR SEGMENT OCT

OPERATING DISTANCE 15-20 mm.

PHOTOGRAPHY TYPE IR

SCAN RANGE (ON CORNEA) HORIZONTAL- 3

VERTICAL- 3-16MM

Scan Patterns 3D Cube, HD Cornea with Calliper, Pachymetry, HD

Angle, wide angle to Angle, Anterior Chamber

imaging with phakic IOL sizing, 5-Line Raster

ELECTRIC RATING

POWER SOURCE VOLTAGE: 100-240V

FREQUENCY: 50-60HZ

POWER INPUT 250VA

COMPUTER SYSTEM Computer with i7 or higher processor Operating

System should be latest Windows 10

Internal storage: 2TB or more

MOTORIZED INSTRUMENT TABLE

ONLINE UPS

This specification is not of any particular firm

(एस0पी0 सिंह)
उप सचिव।

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